

Princeton Plasma Physics Laboratory

Apprenticeship Information Session 2022





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Imagine... the power of the sun, here on Earth. Fusion is the process that powers the sun and the stars, releasing vast amounts of energy that makes all life on Earth possible. When we bring the process of that power to Earth, it will bring about an age of safe, clean, and unlimited energy that will transform our planet. How? By confining hot plasma created by heating hydrogen atoms, our scientists want to create an artificial star to produce energy that can be converted into electricity, available to all humankind, virtually forever!

Mission

The Princeton Plasma Physics Laboratory is a world-class fusion energy research laboratory managed by Princeton University for the U.S. Department of Energy. PPPL is dedicated to developing the scientific knowledge and advanced engineering to enable fusion to power the U.S. and the world; advancing the science of nanoscale fabrication for technologies of tomorrow; and furthering the scientific understanding of the plasma universe from laboratory to astrophysical scales.

Vision

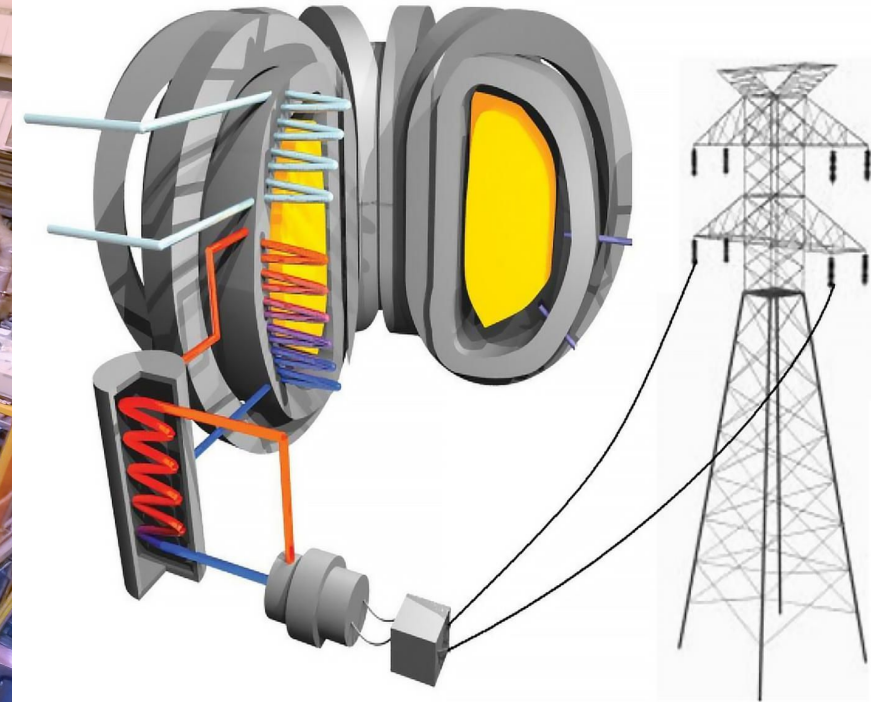
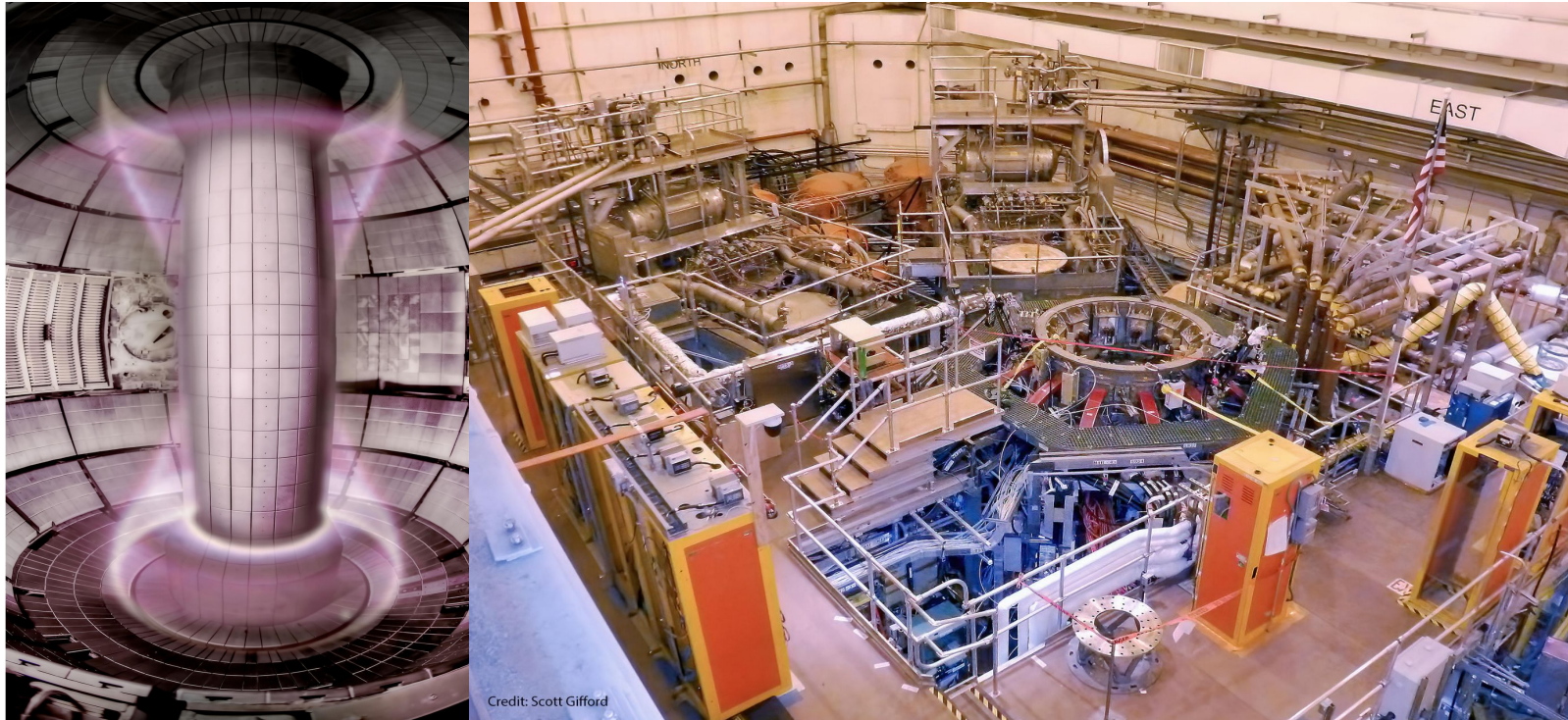
Enabling a world powered by safe, clean and plentiful fusion energy while leading discoveries in plasma science and technology

[More about Princeton Plasma Physics Laboratory](#)

Some of the Devices Apprentices Get to work on



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PPPL Apprenticeship Overview



At the start of the 2022 National Apprenticeship Week, U.S. Department of Labor Secretary Marty Walsh looks back at the role of Registered Apprenticeship in building a skilled and inclusive workforce over the past 85 years, and about exciting initiatives the Administration is taking to further grow, diversify, and modernize the system. Learn more at www.Apprenticeship.gov/NAW



It is an **industry-driven, high-quality career pathway** where employers can develop and prepare their future workforce, and individuals can obtain **paid work experience, classroom instruction, and a portable, nationally-recognized credential.**

One major misconception is that a Registered Apprenticeship Program is the same as an internship. Internships often times are unpaid, informal, and don't necessarily lead to a career pathway. Registered Apprenticeship is full-time employment that includes on-the-job training and classroom instruction. The benefits of a Registered Apprenticeship also include pay increments based on skills progress and a nationally recognized credential at the conclusion of the program.

Gain structured on-the-job learning to prepare for a successful career.

At PPPL all apprentice occupations are required to complete 8000 OJT hours. These hours will be arranged by the apprenticeship program manager, mentors, trainers and team leads. Apprentices will work alongside multiply season professionals and various groups.

Sample of Electrical Technician OJT breakdown

Low voltage power and industrial electronics (instrumentation and Control Systems)	2,000
AC/DC Converter and drive systems, and auxiliary equipment	2,000
Electronics and computerized controls (fabrication, troubleshooting, (maintenance, etc.)	2,000
AC Power distribution, high voltage, protective relays	1,000
Engineering, drafting, CAD, layout, design, power controls, etc.	500
Related Instruction on Grounding Systems, High V/I Sources, substation awareness (PSE&G) (min hrs)	500
TOTAL HOURS	8,000

If you would like to learn about the other registered apprentice positions here at PPPL, please visit our [apprenticeship website](#).



Every apprentice occupation will Included classroom instruction and often provide college credit for your experience while allowing you to avoid student debt.

Each occupation needs to complete 576 Related Technical Instructions (RTI) hours. The classes are preselected and you will work with the Program Manager to register every semester. The tuition is directly billed to PPPL. Classes are in the evening about twice a week. In addition apprentices will be sent for dedicated training courses to earn certifications and licenses.

Gain workplace-relevant skills in the field of your choice through on-the-job learning and under the supervision of an experienced mentor.

At PPPL we have a team of mentors and trainers. Mentors will focus on career development and professional soft skills. Trainers will be rotated based on the tasks that are assigned and will work closely to ensure both a safe and strong learning environment.





Employer

- Reduced Turnover
- Increased Worker Productivity
- Builds a Company's Skills Base
- Pipeline of Skilled Workers/Succession Planning
- Quality Standards

Apprentice

- Hands-on career training
- Develop relationships with employers
- Increased Future earning potential
- National Credential

- First of its kind in the US registered Department of Labor apprenticeship program in fusion energy and engineering
- Created in 2019 to help fill PPPL's technical workforce needs, both today and in the future
- Supports the renewed focus on apprenticeships at both federal and state level for traditional and non-traditional occupations
- Proven workforce solution and reliable pathway for on-the-job training provided by experienced mentor for successful career.
- Apprentices are full time benefit eligible employees
- Apprentices rotate through multiple areas of PPPL while having a one-to-one trainer/mentor from the staff





Join us as we lead the nation and world on the road to clean energy by becoming a PPPL apprentice!

These are occupations that we are looking to have posted in February:

- Cyber Security
- Electrical Maintenance
- Plumbing
- Safety Tech
- Quality Control Inspector

Learn about all of our apprentices occupations [here](#)

Application Requirements:

- High School or equivalent
- At least 18 yrs old by the start date
- Passionate, dedicated, motivated, problem solver, ready to learn and be challenged

Princeton University-Princeton Plasma Physics Laboratory (PPPL) is an [Equal Opportunity/Affirmative Action Employer](#) and all qualified applicants will receive consideration for employment without regard to age, race, color, religion, sex, sexual orientation, gender identity or expression, national origin, disability status, protected veteran status, or any other characteristic protected by law. [EEO IS THE LAW](#)

Princeton University-PPPL job offers are contingent upon the candidate's successful completion of a background check, reference checks, and pre-employment screening, as applicable. Princeton University-PPPL requires all employees to be vaccinated against COVID-19 and submit proof of vaccination status. Employees who cannot receive the vaccine because of a disability/medical contraindication or sincerely-held religious belief may request an accommodation (e.g., an exemption) to this requirement.



- Medical, Dental and Vision; different plan options
- Flexible Spending Accounts
- STD/LTD
- Tuition Reimbursement
- Retirement/Pension Plan – Princeton contributes 9.3%
- Various health and wellness resources (optional)
- Various life insurances
- Generous paid time off (24 vacation days, 11 university holidays, sick days and 2 personal days)

Comprehensive Health/Welfare Benefits:

Employee & Affinity Resource Groups

- Asian Cultural Alliance (ACA)
- Latino Princetonians at PPPL (LP)
- Women in Engineering (WiE)
- Women in Plasma Physics (WiPP)
- Young Professionals Network (YPN)
- **Employees of PPPL can and are encouraged to join ERGs at Princeton University*

- On-site gym
- Health Coach
- Yoga Club
- Walk and Run Club
- Snow Ski and Board Club
- On-site subsidized cafeteria
- Flexible work arrangements

PPPL Recreation & Perks

Community Involvement

- Communiversity
- United Way
- Science on Saturdays
- Science Bowl
- PPPL Tours (pre-covid-19)
- Young Women's Conference in STEM
- American Physical Society (APS) Student Reception Event
- **Employees of PPPL can be a part of participating Princeton University's community events*



- Princeton University and PPPL Job notifications: [Join our Talent Network](#)
- Dept of Labor Resource: At **Job Source** you will find all the tools you need to get started on your next career opportunity.



Helpful Links:

- [Princeton Plasma Physics Laboratory \(PPPL\)](#)
- [U.S. Department of Energy National Laboratory](#)
- [Princeton University](#)
- [PPPL Apprenticeship Program](#)
- [Department of Labor Apprenticeship Program](#)

For information, contact Diana Adel - Program Administrator, apprenticeship@pppl.gov